

ARIZONA STATE VETERINARY MEDICAL EXAMINING BOARD  
1740 W. ADAMS ST., SUITE 4600, PHOENIX, ARIZONA 85007  
PHONE (602) 364-1PET (1738) FAX (602) 364-1039  
VETBOARD.AZ.GOV

received  
7/27/20

**COMPLAINT INVESTIGATION FORM**

*If there is an issue with more than one veterinarian please file a  
separate Complaint Investigation Form for each veterinarian*

PLEASE PRINT OR TYPE

**FOR OFFICE USE ONLY**

Date Received: JULY 27, 2020 Case Number: 21-07

**A. THIS COMPLAINT IS FILED AGAINST THE FOLLOWING:**

Name of Veterinarian/CVT: Dr. Erica Ou  
Premise Name: Tempe Lake Veterinary Clinic  
Premise Address: 1211 E Curry Rd  
City: Tempe State: AZ Zip Code: 85281  
Telephone: (480) 966-1580

**B. INFORMATION REGARDING THE INDIVIDUAL FILING COMPLAINT\*:**

Name: Tara Kalton, PharmD  
Address: [REDACTED]  
City: [REDACTED] State: [REDACTED] Zip Code: [REDACTED]  
Home Telephone: [REDACTED] Cell Telephone: [REDACTED]

\*STATE LAW REQUIRES WE HAVE TO DISCLOSE YOUR NAME UNLESS WE CAN SHOW THAT DISCLOSURE WILL RESULT IN SUBSTANTIAL HARM TO YOU, SOMEONE ELSE OR THE PUBLIC PER A.R.S. § 41-1010. IF YOU HAVE REASON TO BELIEVE THAT SUBSTANTIAL HARM WILL RESULT IN DISCLOSURE OF YOUR NAME PLEASE PROVIDE COPIES OF RESTRAINING ORDERS OR OTHER DOCUMENTATION.

**C. PATIENT INFORMATION (1):**

Name: Chompers Kalton  
Breed/Species: Min Pin, canine  
Age: 10 years Sex: female Color: black/tan

**PATIENT INFORMATION (2):**

Name: \_\_\_\_\_  
Breed/Species: \_\_\_\_\_  
Age: \_\_\_\_\_ Sex: \_\_\_\_\_ Color: \_\_\_\_\_

**D. VETERINARIANS WHO HAVE PROVIDED CARE TO THIS PET FOR THIS ISSUE:**

*Please provide the name, address and phone number for each veterinarian.*

This is a brand new issue, Dr. Ou diagnosed and started treatment.

Tempe Lake Veterinary Clinic, 1211 E Curry Rd, Tempe AZ 85281, (480) 966-1580

She was then referred to Dr. Parker at Salt River Veterinary Specialists.

9953 N 95th St #105, Scottsdale AZ 85258, (480) 819-8630

We then took her to VCA Animal Referral and Emergency Center of Arizona.

1648 N Country Club Dr, Mesa AZ 85201, (480) 898-0001

**E. WITNESS INFORMATION:**

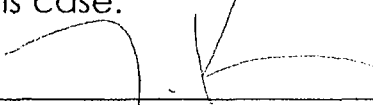
*Please provide the name, address and phone number of each witness that has direct knowledge regarding this case.*

Tara and Jonathan Kalton

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Attestation of Person Requesting Investigation**

By signing this form, I declare that the information contained herein is true and accurate to the best of my knowledge. Further, I authorize the release of any and all medical records or information necessary to complete the investigation of this case.

Signature: 

Date: 7.27.20

**F. ALLEGATIONS and/or CONCERNS:**

*Please provide all information that you feel is relevant to the complaint. This portion must be either typewritten or clearly printed in ink.*

**Allegations:** Dr. Ou provided incorrect directions on the preparation (it was supposed to be shaken, rather than rolled) for the Vetsulin she prescribed for the new diabetic diagnosis of our dog Chompers. Since Dr. Ou didn't know the manufacturers directions for use, we lost 6 weeks and wasted 3 glucose curves while trying to control Chompers blood sugar. As a result, she had her first seizure 4 days after that last glucose curve. When I informed Dr. Ou of the correct directions, she stated that she didn't think that she could help us anymore and referred us to a specialist.

It took a few days to get into Salt River Veterinary Specialists. The day after Chompers had her second seizure and we had no idea if it was related to hypoglycemia, hyperglycemia or something completely unrelated. A day later, we took her back to the specialist for fluids, antiemetic meds and a glucose reader attached to her side. While my husband and I were picking up her new insulin prescription for Humulin N, she had her third seizure. We went immediately to VCA emergency clinic since that seizure completely weakened her and she could no longer stand or lift her head. She had lost nearly 5 pounds off her tiny frame since diagnosis. She was in metabolic acidosis so we planned to have her hospitalized for 5 days to try to stabilize her. Chompers died the next day despite all attempted measures.

**Concerns:** When my husband initially took Chompers to the Tempe Lake Vet Clinic, Dr. Ou explained two problems. Dr. Ou diagnosed her with diabetes since her blood glucose was so high. Dr. Ou also said her anal gland was blocked and inflamed, which could be causing acute pancreatitis. My husband wanted to look further into the pancreatitis, but was ignored.

Dr. Ou prescribed Vetsulin and also wanted us to get a testing kit with a glucose curve scheduled within 1-2 weeks. Dr. Ou made sure to tell my husband to roll the insulin and not to shake it before dosing. Chompers had 3 glucose curves done at the office over 6 weeks. I wasn't working the day of her third glucose curve, so I went and picked her up from Tempe Lake Vet Clinic. Dr. Ou said that our vial of Vetsulin didn't seem to be working, and confirmed that we weren't shaking it in any way. I purchased a new vial of Vetsulin, and went home and read the package insert. That's when I saw that we all had been using the Vetsulin incorrectly.

My concern is how far the ignorance of the Vetsulin instructions goes within Tempe Lake Vet Clinic. Is it all the vets, all the techs, or both? It was off for Chompers' 3 curves, so whoever does the insulin injections during glucose curves was ignorant as well. Vetsulin was taken off the market in 2009 because the efficacy was so variable. It was reintroduced in 2013 with the same formulation, just new instructions to shake thoroughly. So if the directions are not followed, Vetsulin has all the efficacy of a withdrawn drug. Chompers went into ketoacidosis and metabolic acidosis because her blood sugar was not well regulated. I wonder if the proper instructions were given from the beginning, our little girl would still be here with us now.

21-07

To whom it may concern:

Chompers, a 10 yrs, FS, Miniature Pinscher, presented to Tempe Lake Veterinary Clinic on 6/5/2020 for vomiting, lethargy and constipation. Physical exam revealed a BCS 7/9, grade 3/6 left side systolic heart murmur, and mild left sided lymphadenopathy. Rectal exam showed full and easily expressed anal glands without signs of infection or inflammation. Otherwise physical exam findings were unremarkable. I recommended initial workup including CBC/Chem/cPL and radiographs. Radiographs showed mild hepatic enlargement, lumbosacral osteoarthritis with no obvious signs of mechanical obstruction. VHS was 12 with no obvious chamber enlargement. There was an incidental mild narrowing tracheal lumen near thoracic inlet. Canine Pancreatic Lipase results were abnormal. CBC showed a stress leukogram. Serum biochemistry showed hyperglycemia, hypoalbuminemia, elevated ALT, APT, GGT with decreased sodium and chloride. I discussed with Mr. Kalton the diagnosis of Diabetes Mellitus with secondary pancreatitis, as well as electrolytes imbalance due to vomiting/ anorexia. Advised Mr. Kalton that we should give fluids to correct dehydration, and give a cerenia injection to stop vomiting. Additional oral cerenia and probiotics were sent home at discharge. That afternoon, I personally discussed the combined diagnosis of Diabetes Mellitus and pancreatitis and the treatment plan. I advised that when Chompers began eating and drinking normally, we should start long acting insulin therapy. I instructed Mr. Kalton to bring Chompers back on 6/6/2020 for re-evaluation and SQ fluid therapy.

On 6/6/2020, Mr. Kalton reported that Chompers had no vomiting and regained her appetite. Discussed with the owner that I wanted to start insulin treatment with the patient under observation in hospital due to the risk for hypoglycemia and ongoing pancreatitis. Mr. Kalton Agreed. We scheduled an in-hospital glucose curve on 6/9/2020.

On the morning of 6/9/2020, Chompers was admitted for a drop off glucose curve. Mr. Kalton reported that the patient was eating and drinking well at home without additional vomiting. Chompers was offered canned food in the morning (hill's science metabolic/mobility) and blood glucose was tested before insulin treatment. Via Alphatrack 2 glucometer, the blood glucose was 443mg/dl. 3 unit of Vetsulin (40u/ml) was given SQ at 10am, and blood samples were collected every 2 hours. Patient appeared to be doing well during hospitalization. The lowest glucose reading was 285mg/dl. That afternoon at the time of discharge, I recommended to give 3 units of Vetsulin SQ SID and monitor the following week for signs of hypoglycemia, PU/PD, anorexia, vomiting or other clinical signs. Informed owners that insulin dosage may need to be adjusted multiple times and it may take months to achieve ideal glucose control. Owner understood. I recommended Mr. Kalton to order AlphaTRAK 2 Blood Glucose Monitoring System online for home glucose monitoring. I provided additional client information about Diabetes Mellitus and monitoring systems to go home. I discussed with Mr. Kalton that Vetsulin would need to be refrigerated at all times and that before each use to roll the vial until the suspension was well mixed. Also the vetsulin should be used exclusively with a U40 insulin syringe. My Senior technician, Dianne demonstrated SQ injection technique in the exam room with Mr. Kalton. (See written statement with Dianne Stuessel.

Chompers returned to hospital for observation and a repeat glucose curve on 6/18/2020, Mr. Kalton reported that Chompers was PU/PD, lethargic and anorexic. Patient presented QAR and had a normal appetite. Blood glucose before insulin injection was 428mg/dl and lowest glucose reading after insulin treatment was 232 mg/dl. Based on the nadir, I concluded the patient responded to the Vetsulin treatment, but adjustments were needed. We were not able to collect a urine sample at that time. I recommended to change the insulin dose to 2 Unit SQ SID and continue monitoring for hypoglycemia signs at home based on the glucose curve results. Considering the patient was showing clinical signs of anorexia and PU/PD at home, I discussed that we may need to consider hospitalization and potential dose re-adjustment if no clinical improvement within 5-7 days. Discussed with Mr. Kalton and Mrs. Kalton, that we might need to change to a twice-daily schedule if we were unable to achieve adequate glycemic control and improvement of clinical signs. Owner understood. Owner also informed me that they were having difficulty in collecting adequate blood samples for the blood glucose monitor. However, Mrs. Kalton stated that she would continue to try the home glucose monitoring.

We placed a follow up call to the owner at 6/25/2020, left a message for an update on Chompers, and the owner never returned our call to update her status.

Patient presented for follow up examination and hospitalization on 7/3/2020 due to worsening PU/PD, Lethargy and overall doing poorly at home. Pre-insulin check shows 623 mg/dl and post Insulin check shows low point of 51 mg/dl. At this time Chompers did not have an appropriate glucose curve indicating inadequate glycemic control. Patient was nervous in the hospital and we were not able to obtain a urine sample. At discharge, questioned insulin administration technique, and if the vetsulin was adequately refrigerated. Mrs. Kalton informed me that the bottle was under appropriate refrigeration, and it was mixed before administration. I offered 2 courses of action. The first option would be to switch to a new Vetsulin bottle. Second option would be to switch to a new insulin type, such as Humulin. At the same time, I also recommended an internal medicine specialist consultation due to possible underlying disease, such as Cushing's disease, infectious, neoplasia, or other conditions. Mrs Kalton chose to switch to a new Vetsulin bottle. I instructed Mrs. Kalton to increase the vetsulin dose to 3 unit Vetsulin SID and to continue to monitor for signs, such as PU/PD, lethargy, anorexia, hypoglycemia (seizure). Chompers should be rechecked within 3-5 days after.

Follow up call on 7/8/2020 by Dianne: Mrs. Kalton reported Chompers was doing clinically well at home, no more PU/PD and eating/drinking well, although she had one episode of vomiting and some loose stool. Recommended another glucose curve and UA with us if not doing well, if doing well, recommended a follow up exam within 7 days.

Mrs. Kalton contacted us on 7/14/2020 to report that Chompers had a seizure, and that they sought treatment at SVC emergency clinic for stabilization. At that point, I had a conversation with Mrs. Kalton and once again recommended internal medicine specialist consultation due to the complexity of the case and poor response to the treatments. Mrs. Kalton also reported that they purchased a device that tests salivary glucose monitoring. Per Mrs. Kalton, the salivary reading at the time of the seizure was 90 mg/dl, therefore she decided to only give 1.5 Unit of Vetsulin for the day. Her belief was that Chompers was doing better without insulin treatment. Owner indicated her concerns that based upon the label's instruction, Vetsulin should be shaken

prior to injection instead of rolled. At that time, I recommended to refer to the Salt River specialist for any additional recommendations on treatments.

Received the case summary from Salt River Specialist at 7/17/2020, that indicated Chompers was ketone positive and there was a risk for developing DKA. Received call from Mrs. Kalton that informed Chompers had passed away, and indicated they will be filing a board complaint. Upon request, an additional case summary was provided from VCA ARECA, informing us that Chompers had multiple seizures, DKA, severe azotemia, and ultimately passed away. No indication of specific cause of death and no necropsy was performed to my knowledge.

To address Mrs. Kalton's concerns regarding treatment delay, according to Chompers' glucose curve result on 06/09, 3 IU of Vetsulin was given subcutaneously at 10:00 am after meal. Her glucose had dropped from 443 mg/dL at 10:00 a.m. to 285 mg/dL at 17:00 p.m. Another glucose curve on 06/18 indicates Chompers' glucose had decreased from 428mg/dL to 232mg/dL after 3 units of Vetsulin was given subcutaneously at 10:45 a.m. after meal. Chompers had demonstrated responsiveness to Vetsulin therapy. Referral to an internal medicine specialist was first discussed with Mrs. Kalton on 07/03 after reviewing Chompers' glucose reading on that day. Mrs. Kalton chose to get a new bottle of Vetsulin due to the concern that the original Vetsulin bottle had reduce potency. According to our follow up records On 07/08, owner claimed Chompers was doing well without PU/PD. It was not until 07/14 when the owner called in to inform us that Chompers had a seizure and uncontrollable glucose that I convinced Mrs. Kalton to visit a specialist due to concerns of life-threatening complications related to uncontrollable Diabetes Mellitus and undiagnosed underlying conditions disrupting glycemic control. According to Chompers' record, there was response to Vetsulin therapy but ideal glycemic control was yet to be seen. By then, Chompers was referred to the internal specialist immediately for future follow-ups. All treatment plans and follow-up care were scheduled in a timely manner in order to increase the chance for favorable case outcome.

To address Mrs. Kalton's biggest concern, which is to roll rather than shake the vial, I contacted the Vetsulin manufacturer (Merck), and consulted with an internal medicine specialist. Per our conversation, as long as the medication is adequately mixed until it is a homogeneous suspension, it can be either shaken or rolled. My advice to roll the bottle until it reaches a homogenous milky suspension instead of shaking it is based on the fact that the majority of the protein injectable products on the market clearly instruct to avoid shaking as shaking the insulin has been demonstrated to cause insulin particles to stick onto the vial, which reduces the effectiveness of the insulin withdrawn from the bottle. The intention was to eliminate damaging factors to the insulin, such as clumping, foaming or frosting, which could compromise the effectiveness of the product. After speaking with the internal medicine specialist at Merck this has been confirmed that it should not have affected the outcome of this case. No literature has been published to demonstrate the clear advantage of shaking rather than rolling and Merck doesn't indicate to avoid rolling the product in Vetsulin prescribing information. On the other hand, from many manufacturers' literature, it has been demonstrated that shaking can result in reduced efficacy of insulin products. I understand the importance of following guidelines and recommendations that are provided from manufacturers. However, it is also important to use our clinical judgment based on clinical knowledge and data to provide the optimal care to animals. I have also researched an article posted on VIN (Veterinary Information Network) from 2013

when Vetsulin was released back on the market. In the article, the Merck Director of Global Scientific marketing affairs, Dr. Linda Horspool, states that "the new instructions to shake rather than roll the vial is unrelated to the stability problem" that caused the product to be removed from the market initially. Between this statement and my conversation with the internal medicine specialist at Merck, I can confidently state that the instructions to roll versus shake the insulin should not have had any effect on Chompers' outcome and concluded that his decline was related to other underlying conditions that were unknown.

Learning from this scenario, in the future, I will inform any pet owners the entire thought process and underlying logic before prescribing Vetsulin in order to eliminate such discrepancies as in this case. I will recommend shaking the vial thoroughly until a homogeneous, uniformly milky suspension is obtained, per manufacturer recommendation. The most important thing is to ensure the proper mix of the product before administration. Since this issue was brought to our attention, we had a staff meeting involving all employees to discuss this issue.

It was unfortunate to hear Chompers has passed away despite all of our efforts. My deepest condolences to Chompers' family. I want Mrs. Kalton to know that my intention has always been to help Chompers to achieve better health.

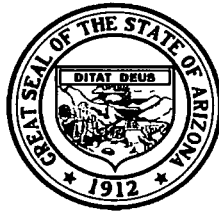
Sincerely,

A handwritten signature in black ink, appearing to be 'EO', with a long horizontal line extending to the right.

Erica Ou, DVM  
Associate Veterinarian  
Tempe Lake Veterinary Clinic and Pet Resort

Additional information about this case could be reached

1. Salt River Veterinary Specialists  
9953 N 95th St #105, Scottsdale, AZ 85258
2. VCA Animal Referral and Emergency Center of Arizona  
1648 N Country Club Dr, Mesa, AZ 85201
3. The Scottsdale Veterinary Clinic  
7311 E Thomas Rd, Scottsdale, AZ 85251



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VETBOARD.AZ.GOV

**INVESTIGATIVE COMMITTEE REPORT**

**TO:** Arizona State Veterinary Medical Examining Board

**FROM:** AM Investigative Committee: Robert Kritsberg, DVM - Chair  
Christina Tran, DVM - **Absent**  
Carolyn Ratajack  
Jarrod Butler, DVM  
Steven Seiler

**STAFF PRESENT:** Tracy A. Riendeau, CVT – Investigations  
Marc Harris – Assistant Attorney General

**RE:** Case: 21-07  
Complainant(s): Tara Kalton, PharmD  
Respondent(s): Erica Ou, D.V.M. (License: 7382)

**SUMMARY:**

Complaint Received at Board Office: 7/27/20  
Committee Discussion: 12/1/20  
Board IIR: 1/20/21

**APPLICABLE STATUTES AND RULES:**

Laws as Amended August 2018  
(Lime Green); Rules as Revised September  
2013 (Yellow).

On June 5, 2020, "Chompers," a 10-year-old female Miniature Pinscher was presented to Respondent due to vomiting, lethargy and constipation. Diagnostics were performed and the dog was diagnosed with diabetes mellitus with secondary pancreatitis. Treatment was provided and the dog was started on insulin the following day.

The dog was presented to Respondent for several glucose curves and the insulin was adjusted accordingly.

On July 3, 2020, the dog was doing poorly and did not have adequate glycemic control. Respondent referred the dog to an internal medicine specialist consultation due to a possible underlying disease. Complainant elected to try a new bottle of insulin to see if that was the possible cause of the dog inadequate response.

On July 17, 2020, the dog was presented to Salt River Specialist for evaluation due to the dog having a seizure a few days prior. The pet owners had stopped insulin administration. Diagnostics were performed and insulin was started at a low dose for the weekend.

On July 20, 2020, the dog was presented to an emergency facility due to seizures. Despite treatment the dog passed away the following day.

**Complainant was noticed and did not appear.**

**Respondent was noticed and appeared telephonically. Attorney David Stoll appeared.**

**The Committee reviewed medical records, testimony, and other documentation as described below:**

- Complainant(s) narrative: *Tara Kalton, PharmD*
- Respondent(s) narrative/medical record: *Erica Ou, DVM*
- Consulting veterinarian(s) narrative/medical record: *Salt River Veterinary Specialists; and VCA ARECA*

## **PROPOSED 'FINDINGS of FACT':**

1. On June 5, 2020, the dog was presented to Respondent due to vomiting, lethargy and constipation. Upon exam, the dog had a weight = 13.8 pounds, a temperature = 99.8, a heart rate = 110bpm, and respiration rate = 45rpm. Respondent noted the dog had a BCS – 7/9; grade 3/6 left side systolic heart murmur, and mild left sided lymphadenopathy, soft abdomen and dehydration = 5%. She recommended blood work and radiographs; Complainant's husband, Mr. Kalton, approved. Radiographs revealed mild hepatic enlargement, lumbosacral osteoarthritis with no obvious signs of mechanical obstruction; slight tracheal collapse was also noted. Blood work revealed the following abnormalities:

ALB	4.1	2.5 – 4.0
GLU	490	75 – 125
CHOL	405	120 – 310
ALT	221	0 – 120
ALP	387	0 – 140
GGT	21	0 – 14
SODIUM	140	141 – 152
CHLORIDE	95	102 – 120
LYMPHS	0.52	0.83 – 4.91

2. Respondent stated that she discussed her findings with Mr. Kalton and the diagnosis of diabetes mellitus with secondary pancreatitis, as well as electrolytes imbalance due to vomiting/anorexia. Fluids were recommended to correct dehydration and give a cerenia injection to stop vomiting. Respondent explained that once the dog began to eat and drink normally, they should start long acting insulin therapy. The dog was administered and discharged with the following:

- a. SQ Fluids 400mLs (type unknown);
- b. Cerenia injection, 0.63 (mLs vs mg?) SQ;
- c. Cerenia 16mg, 4 tablets; give 1 tablet by mouth every 24 hours for anti-nausea;
- d. FortiFlora Canine Box; sprinkle one package to food once daily for probiotic supplement;
- e. Hill's Metabolic & Mobility 12.5oz; and
- f. Recheck the next day.

3. On June 6, 2020, the dog was presented to Respondent's premises for a recheck. Complainant advised that the dog was still enlarged from the SQ fluids administered the previous day and was still a little lethargic. The dog was doing better at home, not more vomiting and has an appetite thus will be ready to begin insulin treatment. Medical record indicates that there was no hospital staff available when Complainant came in with the dog, however, it appears SQ fluids were administered (400mLs – type unknown).

4. On June 9, 2020, the dog was presented to Respondent to start insulin and perform a glucose curve. Upon exam, the dog had a weight = 13.2 pounds, no temperature noted, a heart rate = 130bpm and a respiration rate = 40rpm. The dog was offered food and a blood glucose was tested prior to insulin treatment; glucose = 443mg/dL and 3 units of Vetsulin was administered SQ. The lowest glucose reading that day was at 5:00pm = 285mg/dL.

5. At discharge, Respondent recommended giving the dog 3 units on Vetsulin once a day and monitor throughout the week for signs of hypoglycemia, PU/PD, anorexia, or vomiting, or other clinical signs. She informed the pet owners that insulin dosage may need to be adjusted multiple times and it may take months to achieve ideal glucose control. Respondent recommended ordering an AlphaTRAK 2 Blood Glucose Monitoring System for home glucose monitoring. She discussed with Mr. Kalton that Vetsulin would need to be refrigerated at all times and that before each use to roll the vial until the suspension was well mixed. Also the Vetsulin should be used exclusively with a U40 insulin syringe. Respondent's technical staff, Ms. Stuessel, demonstrated SQ injection technique in the exam room.

6. On June 18, 2020, the dog was presented to Respondent for a follow up exam and a glucose curve. Upon exam, the dog had a temperature = 100 degrees, a heart rate = 110bpm and a respiration rate = 36rpm; no weight recorded. Complainant reported that the dog was PU/PD, lethargic and anorexic. The dog was offered food and had a normal appetite. Blood glucose = 428mg/dL; the dog was administered 3 units Vetsulin SQ. The lowest blood glucose reading = 232mg/dL at 2:55pm. Respondent was unable to collect a urine sample at that time.

7. Respondent discussed the findings with Complainant. She stated that the lowest glucose was 232mg/dL which was lower than expected. Respondent explained that ideally they would like to keep the glucose lowest point above 270mg/dL to avoid any hypoglycemia. She recommended decreasing the insulin dose to 2 units once a day for a week to monitor – they may need to divide the dosage to twice daily. Respondent stated in her narrative that she advised Complainant that the dog may need to be hospitalized for dose re-adjustment if there was no clinical improvement in 5 – 7 days. Complainant reported that they were having difficulty in collecting adequate blood samples for the blood glucose monitor but would continue to try the home glucose monitoring.

8. On July 3, 2020, the dog was presented to Respondent for a recheck. No exam noted. The dog was offered food, ate, blood glucose = 623mg/dL and 2 units of Vetsulin was administered SQ. The lowest blood glucose that day was at 1:00pm = 511mg/dL. At 3:30pm, due to the dog's blood glucose rising (594), 1 unit of Vetsulin was administered SQ. At 5:45pm the dog's blood glucose was 514mg/dL.

9. Respondent reported to Complainant that the dog's blood glucose levels were unregulated therefore she offered two different options – change to a different bottle of Vetsulin, or change to a different type of insulin. Respondent also recommended taking the dog to an internal medicine specialist for consultation due to possible underlying disease such as Cushing's disease, infectious, neoplasia or other. Complainant elected to try a new bottle of Vetsulin – she was instructed to give 3 units SQ, if not regulated, they could give the dog 2 units in the morning and 1 unit in the evening. Respondent was still unable to collect a urine sample.

10. Complainant stated in her narrative that Respondent asked if they were rolling the insulin, not shaking it, to mix; Complainant confirmed. However, once she picked up the new Vetsulin bottle, she read the product insert. The insert read that vial should be shaken, not rolled.

11. Product insert reads in part:

*Shake the vial thoroughly until a homogeneous, uniformly milky suspension is obtained. Foam on the surface of the suspension formed during shaking should be allowed to disperse before the product is used and, if required, the product should be gently mixed to maintain a homogeneous, uniformly milky suspension before use. Clumps or white particles can form in insulin suspensions: do not use the product if visible clumps or white particles persist after shaking thoroughly.*

12. On July 8, 2020, Respondent followed up with Complainant who reported the dog was no longer PU/PD and was eating and drinking well – the dog had one episode of vomiting and some loose stool. Respondent recommended a follow up exam in 7 days. Complainant also ordered a new glucose testing kit that tests saliva.

13. On July 13, 2020, Complainant reported that the dog had a seizure and sought treatment at Scottsdale Veterinary Clinic for stabilization.

14. On July 14, 2020, Respondent called Complainant to discuss the dog's seizure activity, which could be due to hypoglycemia or other causes. Complainant was using a new glucometer to test for salivary glucose level, when the dog had the first seizure, the glucometer showed 90mg/dL. Complainant felt the dog was doing better without insulin treatment. Respondent highly recommended the dog been seen by an internal medicine specialist for consultation as there could be secondary underlying medical concerns.

15. Later that evening (8:00pm), the dog was presented to Dr. Lenius at VCA Animal Referral and Emergency Center of Arizona (ARECA) for tarry stool and lethargy for the past 24 hours. Mr. Kalton reported that the dog was diagnosed with diabetes 6 weeks ago and they were working on regulating the dog's blood glucose. No insulin was given that day due to the glucose reading being 330 at 3:00pm that day. Mr. Kalton reported that the dog's food was changed to help with the diabetes. There was no mention that the dog seized a couple days earlier.

16. The dog was examined; a blood glucose = 659mg/dL; and ketones = 1.4 (normal). Dr. Lenius advised that dogs can have colitis with blood in the stool from diet change and/or stress. The dog was eating well with no vomiting. The dog was discharge with metronidazole and instructions to give the dog her dose of insulin that evening as her glucose was over 600mg/dL.

17. On July 17, 2020, the dog was presented to Dr. Parker at Salt River Veterinary Specialists for evaluation of unregulated diabetes mellitus. Complainant reported that the dog initially responded to treatment but over time her blood glucose increased and became more PU/PD and not acting herself. Complainant felt that while on insulin the dog was lethargic, inappetent and her demeanor changed. Complainant advised that after the dog seizure on July 13<sup>th</sup>, she and her husband elected to take the dog off insulin. She stated the dog was bright and alert and back to herself after discontinuing the insulin. Complainant explained her concerns with the

handling of the Vetsulin – rolling vs shaking, and that the dog's glucose at the time of seizure was 90mg/dL per the saliva glucose test monitor.

18. An abdominal ultrasound revealed a prominent left adrenal gland. Blood work and a urinalysis were performed; an ACTH was also performed to further assess the dog's adrenal function. Dr. Parker recommended switching to a validated glucometer.

19. On July 18, 2020, Dr. Parker relayed the dog's blood results to Complainant. The dog was hyperglycemic and had 1+ ketonuria. Complainant reported that the dog was acting normal at that time therefore Dr. Parker recommended reinstituting Vetsulin at a dose of 0.5 units every 12 hours through the weekend. If the dog became lethargic, or started showing GI signs, the dog should be taken to an emergency facility for IV fluids and supportive care.

20. On July 20, 2020, the dog was presented to Dr. Parker's associate, Dr. Aguirre for seizing. The pet owners reported that the dog was given 0.25 units of Vetsulin on Saturday, soon after the dog had a seizure. The dog did not administer any more insulin over the weekend. The dog was inappetent, vomiting and passing diarrhea. Dr. Aguirre examined the dog; glucometer = HI. The dog was administered SQ fluids and given an injection of cerenia. A Free Style Libre sensor was placed. Complainant was reluctant to give the dog Vetsulin there for Novolin was to be used with U-100 syringes. Dr. Aguirre was puzzled by the seizures and felt they were likely due to hyperglycemia or intracranial disease rather than hypoglycemia give the time interval between insulin administration and the onset of a seizure. The pet owners elected to take the dog home for the evening; if the dog continued to have problems hospitalization would be recommended and required.

21. Later that evening, the dog was presented to Dr. Lenius at VCA ARECA on emergency due to seizure activity, vomiting and anorexia. The dog was hyperglycemic (glucose > 700) with ketoacidosis (ketones > 7) therefore was hospitalized for supportive care and monitoring. The dog was placed on IV fluids and diagnostics were performed. The differential diagnoses included neoplasia, epilepsy, lowered seizure threshold due to hyperglycemia, electrolyte imbalance and cerebral edema. If the diabetes is regulated and the dog continued to seizure, a neuro consult would be recommended. The dog was administered phenobarbital as part of the treatment regimen due to the dog continuing to seizure during hospitalization.

22. The following day, the dog passed away despite hospitalization and treatment.

23. Complainant expressed concerns that she was advised by Respondent and her staff to roll the Vetsulin instead of shaking the product prior to administration and felt that if proper instructions were given from the beginning the dog would still be with her.

## **COMMITTEE DISCUSSION:**

The Committee discussed that it would have been nice to have some information from the pet owners regarding the administration of the insulin at home. There were getting some good control from the glucose curves at the premises. Although the dosing was based on older information, the Committee did not feel there was a violation.

**COMMITTEE'S PROPOSED CONCLUSIONS of LAW:**

The Committee concluded that no violations of the *Veterinary Practice Act* occurred.

**COMMITTEE'S RECOMMENDED DISPOSITION:**

**Motion:** It was moved and seconded the Board:

*Dismiss this issue with no violation.*

**Vote:** The motion was approved with a vote of 4 to 0.

*The information contained in this report was obtained from the case file, which includes the complaint, the respondent's response, any consulting veterinarian or witness input, and any other sources used to gather information for the investigation.*

TR

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Tracy A. Riendeau, CVT  
Investigative Division